

Release notes for ENDF/B Development n-070_Yb_171
evaluation



April 26, 2017

- psyche Warnings:

1. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 22 / THE CALCULATED Q 1.46019E+06 DISSAGREES WITH THE GIVEN Q 1.55968E+06 (0): Iffy Q

```
FILE 3
SECTION 22
      THE CALCULATED Q  1.46019E+06 DISSAGREES WITH THE GIVEN Q  1.55968E+06
```

2. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 103 / THE CALCULATED Q 4.97317E+05 DISSAGREES WITH THE GIVEN Q 6.85806E+05 (0): Iffy Q

```
FILE 3
SECTION 103
      THE CALCULATED Q  4.97317E+05 DISSAGREES WITH THE GIVEN Q  6.85806E+05
```

3. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 203 / THE CALCULATED Q 4.97317E+05 DISSAGREES WITH THE GIVEN Q 6.85806E+05 (0): Iffy Q

```
FILE 3
SECTION 203
      THE CALCULATED Q  4.97317E+05 DISSAGREES WITH THE GIVEN Q  6.85806E+05
```

- fudge-4.0 Warnings:

1. Potential scattering hasn't converted, you need more L's!
resonances / resolved / MultiLevel_BreitWigner (Error # 0): potentialScatteringNotConverged

```
WARNING: Potential scattering hasn't converged by L=0 at E=1700.0 eV, xs[0]/xs[0]=100.0% > 0.1%
```

2. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.

```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.14%
```

3. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 1: nonelastic (Error # 0): CS Sum.

```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.76%
```

- njoy2012 Warnings:

1. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (0): HEATR/hinit (4)

```
---message from hinit---mf6, mt 16 does not give recoil za= 70170
one-particle recoil approx. used.
```

2. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (1): HEATR/hinit (4)

---message from hinit---mf6, mt 17 does not give recoil za= 70169
one-particle recoil approx. used.

3. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (2): HEATR/hinit (4)

---message from hinit---mf6, mt 22 does not give recoil za= 70171
one-particle recoil approx. used.

4. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (3): HEATR/hinit (4)

---message from hinit---mf6, mt 28 does not give recoil za= 70171
one-particle recoil approx. used.

5. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (4): HEATR/hinit (4)

---message from hinit---mf6, mt 32 does not give recoil za= 70171
one-particle recoil approx. used.

6. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (5): HEATR/hinit (4)

---message from hinit---mf6, mt 51 does not give recoil za= 70171
one-particle recoil approx. used.

7. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (6): HEATR/hinit (4)

---message from hinit---mf6, mt 52 does not give recoil za= 70171
one-particle recoil approx. used.

8. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (7): HEATR/hinit (4)

---message from hinit---mf6, mt 53 does not give recoil za= 70171
one-particle recoil approx. used.

9. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (8): HEATR/hinit (4)

---message from hinit---mf6, mt 54 does not give recoil za= 70171
one-particle recoil approx. used.

10. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (9): HEATR/hinit (4)

---message from hinit---mf6, mt 55 does not give recoil za= 70171
one-particle recoil approx. used.

11. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (10): HEATR/hinit (4)

---message from hinit---mf6, mt 56 does not give recoil za= 70171
one-particle recoil approx. used.

12. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (11): HEATR/hinit (4)

---message from hinit---mf6, mt 57 does not give recoil za= 70171
one-particle recoil approx. used.

13. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (12): HEATR/hinit (4)

---message from hinit---mf6, mt 58 does not give recoil za= 70171
one-particle recoil approx. used.

14. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (13): HEATR/hinit (4)

---message from hinit---mf6, mt 59 does not give recoil za= 70171
one-particle recoil approx. used.

15. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (14): HEATR/hinit (4)

---message from hinit---mf6, mt 60 does not give recoil za= 70171
one-particle recoil approx. used.

16. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (15): HEATR/hinit (4)

---message from hinit---mf6, mt 61 does not give recoil za= 70171
one-particle recoil approx. used.

17. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (16): HEATR/hinit (4)

---message from hinit---mf6, mt 62 does not give recoil za= 70171
one-particle recoil approx. used.

18. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (17): HEATR/hinit (4)

---message from hinit---mf6, mt 63 does not give recoil za= 70171
one-particle recoil approx. used.

19. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (18): HEATR/hinit (4)

---message from hinit---mf6, mt 64 does not give recoil za= 70171
one-particle recoil approx. used.

20. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (19): HEATR/hinit (4)

---message from hinit---mf6, mt 65 does not give recoil za= 70171
one-particle recoil approx. used.

21. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (20): HEATR/hinit (4)

---message from hinit---mf6, mt 66 does not give recoil za= 70171
one-particle recoil approx. used.

22. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (21): HEATR/hinit (4)

---message from hinit---mf6, mt 67 does not give recoil za= 70171
one-particle recoil approx. used.

23. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (22): HEATR/hinit (4)

---message from hinit---mf6, mt 68 does not give recoil za= 70171
one-particle recoil approx. used.

24. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (23): HEATR/hinit (4)

---message from hinit---mf6, mt 69 does not give recoil za= 70171
one-particle recoil approx. used.

25. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (24): HEATR/hinit (4)

---message from hinit---mf6, mt 70 does not give recoil za= 70171
one-particle recoil approx. used.

26. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (25): HEATR/hinit (4)

---message from hinit---mf6, mt 71 does not give recoil za= 70171
one-particle recoil approx. used.

27. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (26): HEATR/hinit (4)

---message from hinit---mf6, mt 72 does not give recoil za= 70171
one-particle recoil approx. used.

28. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (27): HEATR/hinit (4)

---message from hinit---mf6, mt 73 does not give recoil za= 70171
one-particle recoil approx. used.

29. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (28): HEATR/hinit (4)

---message from hinit---mf6, mt 74 does not give recoil za= 70171
one-particle recoil approx. used.

30. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (29): HEATR/hinit (4)

---message from hinit---mf6, mt 75 does not give recoil za= 70171
one-particle recoil approx. used.

31. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (30): HEATR/hinit (4)

```
---message from hinit---mf6, mt 76 does not give recoil za= 70171
one-particle recoil approx. used.
```

32. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (31): HEATR/hinit (4)

```
---message from hinit---mf6, mt 77 does not give recoil za= 70171
one-particle recoil approx. used.
```

33. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (32): HEATR/hinit (4)

```
---message from hinit---mf6, mt 78 does not give recoil za= 70171
one-particle recoil approx. used.
```

34. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (33): HEATR/hinit (4)

```
---message from hinit---mf6, mt 79 does not give recoil za= 70171
one-particle recoil approx. used.
```

35. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (34): HEATR/hinit (4)

```
---message from hinit---mf6, mt 80 does not give recoil za= 70171
one-particle recoil approx. used.
```

36. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (35): HEATR/hinit (4)

```
---message from hinit---mf6, mt 81 does not give recoil za= 70171
one-particle recoil approx. used.
```

37. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (36): HEATR/hinit (4)

```
---message from hinit---mf6, mt 82 does not give recoil za= 70171
one-particle recoil approx. used.
```

38. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (37): HEATR/hinit (4)

```
---message from hinit---mf6, mt 83 does not give recoil za= 70171
one-particle recoil approx. used.
```

39. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (38): HEATR/hinit (4)

```
---message from hinit---mf6, mt 84 does not give recoil za= 70171
one-particle recoil approx. used.
```

40. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (39): HEATR/hinit (4)

---message from hinit---mf6, mt 85 does not give recoil za= 70171
one-particle recoil approx. used.

41. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (40): HEATR/hinit (4)

---message from hinit---mf6, mt 86 does not give recoil za= 70171
one-particle recoil approx. used.

42. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (41): HEATR/hinit (4)

---message from hinit---mf6, mt 87 does not give recoil za= 70171
one-particle recoil approx. used.

43. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (42): HEATR/hinit (4)

---message from hinit---mf6, mt 88 does not give recoil za= 70171
one-particle recoil approx. used.

44. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (43): HEATR/hinit (4)

---message from hinit---mf6, mt 89 does not give recoil za= 70171
one-particle recoil approx. used.

45. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (44): HEATR/hinit (4)

---message from hinit---mf6, mt 91 does not give recoil za= 70171
one-particle recoil approx. used.

46. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (45): HEATR/hinit (4)

---message from hinit---mf6, mt203 does not give recoil za= 69171
one-particle recoil approx. used.

47. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (46): HEATR/hinit (4)

---message from hinit---mf6, mt204 does not give recoil za= 69170
one-particle recoil approx. used.

48. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (47): HEATR/hinit (4)

---message from hinit---mf6, mt205 does not give recoil za= 69169
one-particle recoil approx. used.

49. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (48): HEATR/hinit (4)

---message from hinit---mf6, mt206 does not give recoil za= 68169
one-particle recoil approx. used.

50. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (49): HEATR/hinit (4)

```
---message from hinit---mf6, mt207 does not give recoil za= 68168
one-particle recoil approx. used.
```

- njoy2012 Errors:

1. An unidentified mismatch in a photon production sum
check...ace consistency check (0): Gamma sum

```
check photon production sum
  consis: mismatch at 1.385029E-03 gpd= 2.795311E-01 sum= 2.795655E-01
```

2. An unidentified mismatch in a photon production sum
check...ace consistency check (1): Gamma sum

```
check photon production sum
  consis: mismatch at 1.385853E-03 gpd= 2.470554E-01 sum= 2.470838E-01
```

3. An unidentified mismatch in a photon production sum
check...ace consistency check (2): Gamma sum

```
check photon production sum
  consis: mismatch at 1.391227E-03 gpd= 1.794690E-01 sum= 1.794995E-01
```

4. An unidentified mismatch in a photon production sum
check...ace consistency check (3): Gamma sum

```
check photon production sum
  consis: mismatch at 1.392129E-03 gpd= 1.870356E-01 sum= 1.870652E-01
```

5. An unidentified mismatch in a photon production sum
check...ace consistency check (4): Gamma sum

```
check photon production sum
  consis: mismatch at 1.393933E-03 gpd= 2.458672E-01 sum= 2.458393E-01
```

6. An unidentified mismatch in a photon production sum
check...ace consistency check (5): Gamma sum

```
check photon production sum
  consis: mismatch at 1.557131E-03 gpd= 2.599803E-01 sum= 2.600077E-01
```

7. An unidentified mismatch in a photon production sum
check...ace consistency check (6): Gamma sum

```
check photon production sum
  consis: mismatch at 1.557920E-03 gpd= 2.341738E-01 sum= 2.341466E-01
```

8. An unidentified mismatch in a photon production sum
check...ace consistency check (7): Gamma sum

```
check photon production sum
  consis: mismatch at 1.558710E-03 gpd= 2.146595E-01 sum= 2.146862E-01
```

9. An unidentified mismatch in a photon production sum
check...ace consistency check (8): Gamma sum

```
check photon production sum
  consis: mismatch at 1.561653E-03 gpd= 1.741005E-01 sum= 1.741183E-01
```

10. An unidentified mismatch in a photon production sum
check...ace consistency check (9): Gamma sum

```
check photon production sum
  consis: mismatch at 1.566963E-03 gpd= 1.606240E-01 sum= 1.606561E-01
```

11. An unidentified mismatch in a photon production sum
check...ace consistency check (10): Gamma sum

```
check photon production sum
  consis: mismatch at 1.567824E-03 gpd= 1.632176E-01 sum= 1.632353E-01
```

12. An unidentified mismatch in a photon production sum
check...ace consistency check (11): Gamma sum

```
check photon production sum
  consis: mismatch at 1.569546E-03 gpd= 1.724863E-01 sum= 1.724581E-01
```

13. An unidentified mismatch in a photon production sum
check...ace consistency check (12): Gamma sum

```
check photon production sum
  consis: mismatch at 1.570407E-03 gpd= 1.795440E-01 sum= 1.795144E-01
```

14. An unidentified mismatch in a photon production sum
check...ace consistency check (13): Gamma sum

```
check photon production sum
  consis: mismatch at 1.609997E-03 gpd= 3.302331E-01 sum= 3.302000E-01
```

15. An unidentified mismatch in a photon production sum
check...ace consistency check (14): Gamma sum

```
check photon production sum
  consis: mismatch at 1.628523E-03 gpd= 2.651013E-01 sum= 2.651340E-01
```

16. An unidentified mismatch in a photon production sum
check...ace consistency check (15): Gamma sum

```
check photon production sum
  consis: mismatch at 1.631560E-03 gpd= 3.694848E-01 sum= 3.695222E-01
```

17. An unidentified mismatch in a photon production sum
check...ace consistency check (16): Gamma sum

```
check photon production sum
  consis: mismatch at 1.649018E-03 gpd= 2.100871E-01 sum= 2.100587E-01
```

18. An unidentified mismatch in a photon production sum
check...ace consistency check (17): Gamma sum

```
check photon production sum
  consis: mismatch at 1.695494E-03 gpd= 1.961075E-01 sum= 1.960746E-01
```

19. An unidentified mismatch in a photon production sum
check...ace consistency check (18): Gamma sum

```
check photon production sum
  consis: mismatch at 1.697250E-03 gpd= 1.532465E-01 sum= 1.532692E-01
```

20. An unidentified mismatch in a photon production sum
check...ace consistency check (19): Gamma sum

```
check photon production sum
  consis: mismatch at 1.697689E-03 gpd= 1.601350E-01 sum= 1.601140E-01
```

21. An unidentified mismatch in a photon production sum
check...ace consistency check (20): Gamma sum

```
check photon production sum
  consis: mismatch at 1.698018E-03 gpd= 2.151575E-01 sum= 2.151243E-01
```